

Available online at www.sciencedirect.com

ScienceDirect

Procedia - Social and Behavioral Sciences 171 (2015) 236 – 240

Procedia
Social and Behavioral Sciences

ICEEPSY 2014

Pedagogical-psychological aspects of LS preferences within the bachelor English course

Eva Svarcova^a, Dagmar El-Hmoudova^{b*}^aUniversity of Hradec Kralove, Rokitanskeho 62, Hradec Kralove 500 03, Czech Republic^bUniversity of Hradec Kralove, Rokitanskeho 62, Hradec Kralove 500 03, Czech Republic

Abstract

One of the most debated concepts in the teaching and educational literature is the study of learning styles. Almost everyone in the education field agrees that different students learn best in different ways. There is far more disagreement, however, when it comes to classifying the learning styles. Educators and researchers are often overwhelmed by the huge number of definitions, theoretical models, and learning style instruments. If a classification system was widely agreed upon, there would still be problems in developing an assessment tool capable of accurately determining each student's learning style preference. Furthermore, it seems that the current research work on this topic doesn't provide a convincing recommendation for how pedagogical practices should be altered in order to improve student learning performance and results. This paper will provide a brief overview of the learning styles literature and definitions, outlining the major pedagogical and psychological implications, including the outcome of an English language course innovation that was inspired by the Felder's LS model.

© 2015 The Authors. Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Peer-review under responsibility of the Organizing Committee of ICEEPSY 2014.

Keywords: learning style (LS); pedagogical implications; psychological implications; Myers-Briggs Type Indicator (MBTI);

* Dagmar El-Hmoudova Tel.: +420 493 332 314.
E-mail address: dagmar.el_hmoudova@uhk.cz

1. Introduction

It is generally accepted that people learn and process information in different ways. The question is whether we can describe what those differences are or improve the unique ways that we learn. For decades, education researchers designed models that differentiate how people learn. Learning style assessments provide learners as well as teachers an opportunity to learn how to respond under different circumstances and how to approach information in a way that best addresses students' particular needs.

The following theorists have made significant contributions in the area of learning. John Dewey, Robert Gagne, David Kolb, and Lev Vygotsky all focus on experiential learning, while Lawrence Kohlberg and Jean Piaget focus on moral and cognitive development and how it applies to learning. Kenneth and Rita Dunn, Richard Felder, and David Kolb focus on the preferences or styles individuals use to approach learning, and Howard Gardner examines the different types of intelligences that exist in the human brain and their effect on learning.

Apart from worldwide known scientists listed above, the Czech educational scientists have contributed to this field, reflecting the specific Czech educational circumstances. Especially Jiri Mares states that learning styles have meta-strategic character bringing together distinct learning strategies, teaching tactics and learning operations. The meta-strategy monitors, evaluates, and aims the learning styles in a certain direction, regulates them with regard to the learning environment, achieved learning performance and the social context of learning process. The LS preference leads an individual to the learning achievement of a particular type, but at the same time makes it difficult to achieve other, often better, results. (Mareš, 1998, pp. 75).

According to Mares LS can be characterized as follows:

- An indigenous practices in learning (distinct in structure, sequence quality, flexibility of application), which have the character of meta-learning (strategies applied by students in their learning, especially in planning, monitoring and evaluation of their learning practice).
- Procedures applied by students in a certain period of school attendance in most situations of the teaching process.
- Partially dependent on the curriculum (learning content) as well as subjects (disciplines)
- Leading to some results, such as to simply memorization of knowledge or to understanding; this is proved by the practical application of achieved skills.
- They are inborn, i.e., growing from cognitive styles.
- They are develop by the interaction of internal and external conditions (impacts), and can therefore be to some extent influenced and changed.
- We are mostly not aware of learning styles, as they are for most individuals natural and convenient. We usually do not try to improve LS anyhow; the change is not too easy.
- Factors influencing change in learning style are significantly related to the change of environment and the ability of an individual to adapt to the new environment. Furthermore, LS are related to the natural maturation of individuals who possess inborn skills, as well as to physical agents (light, noise, time of day, etc.), and they are also effected by so-called derived factors (social and cultural factors). The learning styles are therefore influenced by: inborn sensory orientation, age, gender, the dominant type of intelligence, specific teaching subject (discipline), the anticipated cognitive thinking, psycho-cognitive development, as well as family environment and cultural influences.

1. Pedagogical Implications

Some research has proved that when the students' and teachers' learning styles are seriously mismatched, the students are likely to be uncomfortable, bored, and inattentive, resulting in poor performance (Felder and Spurlin 2005). There are, however, problems with this type of matching. The primary concern is that students, who are taught only in the type of method that they are comfortable with, fail to develop the skills required to learn in other ways. Thus, a better solution is for teachers to modify their methods of teaching in accordance with the learning styles of their students. This first of all requires teachers to understand the learning styles of both their students and themselves.

By understanding their dominant learning preference, teachers can avoid only teaching to their preferred style of learning. More importantly, by students recognizing their strongest style of learning, they may become aware of strategies to learn more effectively in situations where their dominant mode is not being used (Haar et al. 2002). One finding of Kolb's research was that people – students and teachers, tend to choose fields that are consistent with their learning styles and are further shaped to fit the learning norms of their field once they are in it (Kolb 1981). Kolb collected data on the learning styles of undergraduate students in the U.S. and used the information to categorize disciplines by various learning styles (see Fig.1).

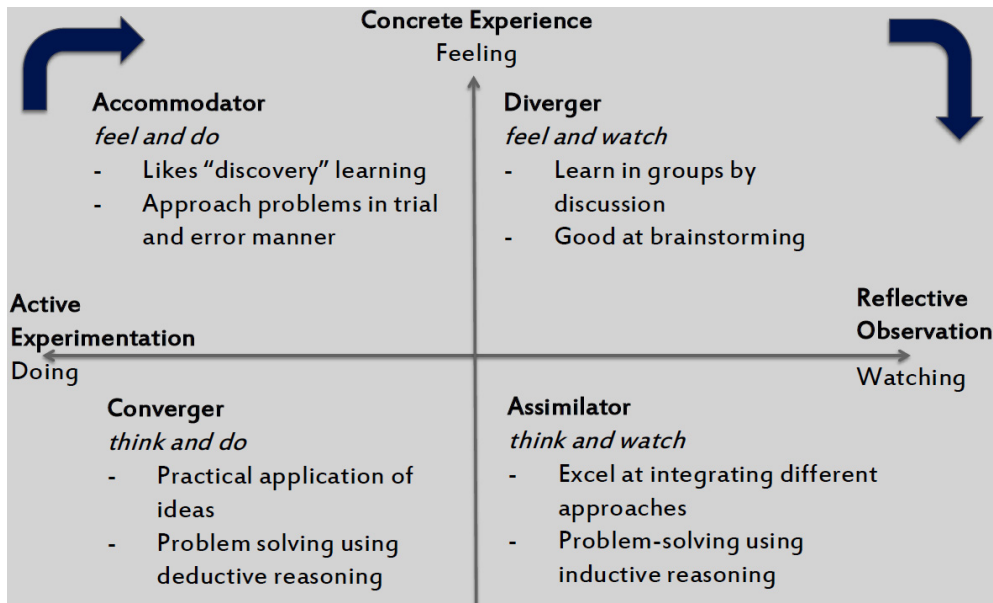


Fig. 1. Concrete/Abstract and Active/Reflective orientations of academic fields (from Kolb, 1981).

This categorization was meant to illustrate how higher education was encouraging early specialization of students, which was not preparing them for the integrative learning experiences that they would meet throughout their adult lives. That is why from pedagogical point of view broad exposure to different learning environments is in the best long-run interest of students.

2. Psychological implications

To identify and assess student's LS it is inevitable to involve the instrument of sociological (personality) type. The most well-known instrument used to assess psychological type is the Myers-Briggs Type Indicator (MBTI) (Jung, 1971). The MBTI is used to understand personality difference and basically describes various behavior patterns. These behavior patterns in turn affect how we function in the world. This system of understanding different patterns of behavior is based on the idea that people are unique individuals and are born with "preferences." The word "preference" refers to the ways in which individuals naturally "prefer" to do certain things.

The model developed by Myers-Briggs classifies students according to their preferences on scales derived from psychologist Carl Jung's theory of psychological types. This model lists four different pairs of opposite preferences see Fig. 2.

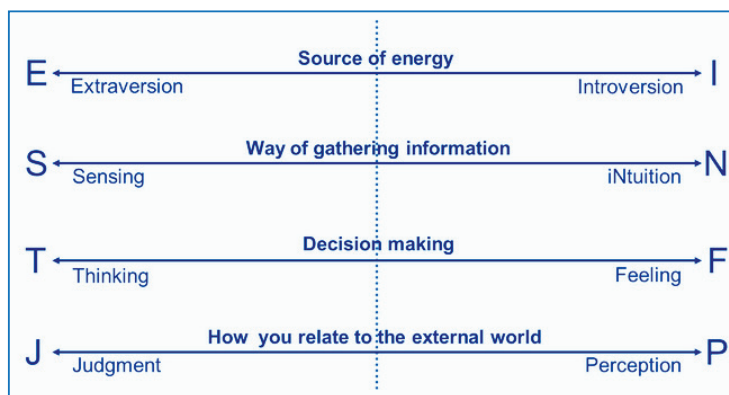


Fig.2. MBTI: four preferences

According to scientists everyone uses all four of the pairs of opposite preferences indicated in the MBTI, and not just the ones that are preferred. There has not been provided any documented evidence that any set of preferences is superior to another in any way. In this sense, the theory of psychological type and learning styles mesh well since there is no evidence that one learning style is academically superior to another. All types and styles are simply "unique." Certainly one type or style might work best in a particular learning situation, but that doesn't make that style or type superior to another. (Hein, 2007)

3. LS preferences and their reflection in the professional English language course

Based on the Felder-Silverman model of Learning style, there has been innovated the professional English language online course for a group of 223 students of Management of Tourism and Applied Informatics. To identify the LS preference we used Felder's Index of learning style, which was introduced into the online course in winter semester 2013/14. The results proved that 80% of our students are visual and 83% sensing. see Fig.3 and Fig.4. Based on these results we started to implement maximum of visual materials (pictures, videos, graphs,) into the course.

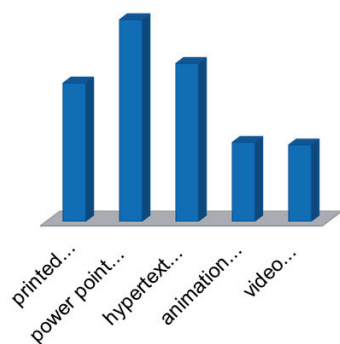


Fig.3. Preferred materials in learning process

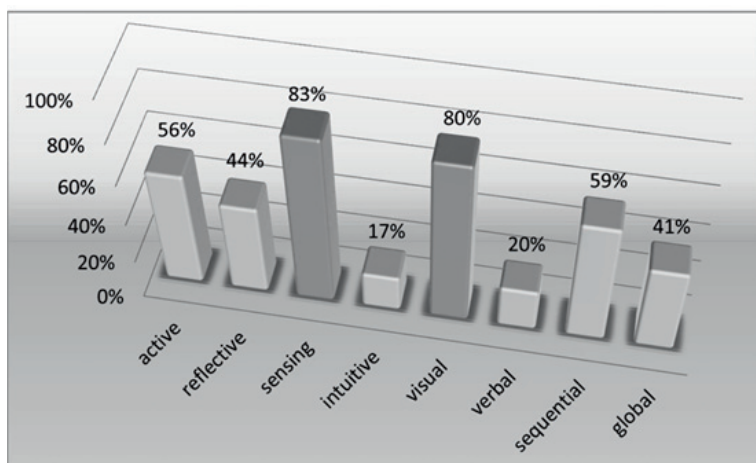


Fig.4. General overview of LS preferences in %

We have also prepared two tests containing C1 level language competences assessment. The first test, which students passed at the beginning of winter semester in October 2013, before the changes made into the online course resulted with only 47% of successful students reaching 75% passing level. The outcome of final test, which was held at the end of summer semester, after the introduction of new visual instructions in the on-line course, was 81% of successfully passed achievement tests reaching 75% of passing level. This result encouraged us as teachers and the course creators to continue in the on-line course modification, reflecting the LS preferences of our students. Besides, the new Specific Research Project has already started in November 2013, targeting LS preferences detection, new teaching strategies development as well as relevant instructions implementation.

4. Conclusion

While much research has been conducted into understanding students' learning styles and determining the practical implications of this knowledge, there is still much to be determined in this field. The authors of the paper have already started to work on the Specific Research Project, which aims to improve the instructions in the on-line course of professional English language in Blackboard at Faculty of Informatics and Management, University of Hradec Kralove. We are fully aware of the fact that given the vast amount of differing conclusions on this topic, we may be left without a clear idea of how to use this information going forward. The best course of action for us as teachers is probably to offer a diverse set of learning experiences in order to ensure that students of all styles are able to get the information in the ways that best suit their personalities. This will also provide an opportunity for all students to develop strategies for learning in multiple ways. Further research on the topic of learning styles can help answer some of the unresolved debates in the literature and lead to solutions that will improve the performance of both our students and us as educators and teachers.

References

- Felder, R., and J. Spurlin. "Applications, Reliability and Validity of the Index of Learning Styles." *International Journal of Engineering*, 21(1), 2005, 103-112.
- Harr, J., G. Hall, P. Schoepp, and D. Smith. "How Teachers Teach to Students with Different Learning Styles." *The Clearing House*, 75(3), 2002, Hein Teresa L. & Dan D. Budny (2007, June). *Why Bother Learning about Learning Styles and Personality Types?* Annual conference of the American Society for Engineering Education, St. Louis, Missouri (Session 3280). Article published in electronic proceedings.143-145.
- Jung, C. G. (1971). Psychological Types. In R. F. C. Hull (Ed.), *The Collected Works of C. G. Jung*, Volume 6. New Jersey: Princeton University Press.
- Kolb, D. "Learning Styles and Disciplinary Differences." *The modern American college*, 1981, 232-55.
- Mares, J. *Stylý učení žáků a studentů*. Praha: Portál, 1998. ISBN 80-7178-246-7